

PPII and New Source Review

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Bottom Line

- PPII projects are considered Clean Coal Technology (CCT) projects for the purposes of regulatory review.
- There are permitting exemptions in the Code of Federal Regulations (CFR) for permanent and temporary CCT demonstration projects (see Parts 51, 52, and 60 of Title 40 of the CFR, enacted July 1992; also see Clean Air Act Amendments of 1990).
- CAA requirements are largely implemented through State agencies that may not have these exemptions specifically written into their code of state regulations (CSR) -- education regarding these CFR exemptions may be required.
- Project developers need to interface with the affected State(s) (and, if required, Federal) permitting authorities to reach agreement on the requirements that will apply to their particular project.



CAA Permit Requirements

- Under CAA, existing sources are generally required to obtain a permit prior to undertaking changes which result in an increase in air pollutant emissions.
- If the changes are considered “modifications,” new source review would apply which would generally require:
 - installation of best available control technology
 - an analysis of compliance with National Ambient Air Quality Standards (NAAQS)
 - an analysis of compliance with Prevention of Significant Deterioration (PSD) increments (for NAAQS attainment areas).
- Suggestion -- look at CAA’s definition of what constitutes a “modification” -- many PPII proposed projects may not be considered modifications.



CAA Amendments of 1990

- **Section 415 -- exemption of temporary CCT demonstration projects (less than 5 yrs of operation) from**
 - Section 111 of the CAA -- New Source Performance Standards
 - Part C of Title I -- New Source Review under State Implementation Plans (SIPs) for NAAQS attainment areas
 - Part D of Title I -- New Source Review under SIPS for NAAQS non-attainment areas
 - Facility must comply with SIP
 - Facility cannot cause NAAQS exceedence.



CAA Amendments of 1990

- **Section 415 -- exemption of permanent CCT demonstration that constitute repowering projects from**
 - Section 111 of the CAA -- New Source Performance Standards
 - Part C -- New Source Review under State Implementation Plans (SIPs) for NAAQS attainment areas
 - Exemptions apply to any pollutant that will not undergo an increase in potential emissions (potential to emit)
 - Potential to emit: maximum capacity of the stationary source to emit a pollutant under its physical and operational design.



Parts 51 and 52 of Title 40

- Prescribes rules for states to follow in order to implement federal air quality standards, including permitting.
- Under 40 CFR 51.166(b)(2)(iii)(h), *pollution control projects* at existing utility steam generating units (e.g. retrofit projects that would reduce NO_x, SO₂ or mercury) are generally exempt from new source review requirements as long as they do not render the unit “less environmentally beneficial” and they meet other requirements such as compliance with SIP, PSD increments, NAAQS, visibility limitations, etc.



Parts 51 and 52 of Title 40

- Definition of a *pollution control project* includes the definition of a permanent CCT demonstration project that constitutes repowering.
- Suggestion -- Look at CFR definitions for what constitutes a “physical change,” a “modification, ” a “pollution control project,” and “repowering.”



Parts 51 and 52 of Title 40

- **Under 40 CFR 51.166(b)(2)(iii)(i), temporary CCT projects are generally exempt from new source review provided they comply with SIP and do not create NAAQS non-attainment issues (during project and after termination).**
- **Under 40 CFR 51.166(b)(2)(iii)(j), permanent CCT repowering projects are generally exempt from new source review provided that they do not increase the unit's potential to emit any regulated pollutant. These projects are also covered under the pollution control project exemption, because they are included in the definition under 40 CFR 51.166(b)(31).**



Part 60 of Title 40

- **New Source Performance Standards**
- **Permanent CCT repowering projects are exempt from NSPS, if repowering does not increase the maximum hourly emissions of any NSPS regulated pollutant above the maximum hourly emissions achievable at that unit during 5 yrs prior to the change.**
- **Temporary CCT demonstration projects are exempt from NSPS if they comply with SIP and do not violate ambient air quality standards (during project and after termination).**



Part 60.15 of Title 40

- **Another possible review/permitting requirement under “Reconstruction” -- An existing facility, upon reconstruction, becomes an affected facility (for application review of new stationary source standards of performance), irrespective of any change in emission rate, if the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility (40 CFR 60.15).**
- **Do not know if Permanent CCT or Temporary CCT exemptions would take precedence over the permitting/review requirements of a reconstruction activity that is determined to be an affected facility.**



NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

- **Goal: ensure that environmental factors are considered in the decision-making process and promote environmentally responsible decisions**
- **NEPA regulations: 40 CFR 1500-1508**
- **DOE's implementing regulations: 10 CFR 1021**
- **Solicitation has two-tier NEPA strategy**
 - project-specific reviews of environmental issues pertinent to each proposed project prior to selection (environmental questionnaire)
 - more detailed site-specific environmental reviews under NEPA after DOE selection-- this is where the NEPA decision will actually be made (environmental information volume - EIV)



NEPA Decision Endpoints

- **Categorical exclusion (CX)**
 - based on environmental questionnaire and project information
- **Finding of No Significant Impact (FONSI) based on an Environmental Assessment (EA)**
 - based on environmental information volume (EIV)
 - takes ~5 months after EIV is generated
- **Record of Decision (ROD) based on an Environmental Impact Statement (EIS)**
 - based on environmental information volume (EIV)
 - takes ~15 months after EIV is generated



Pre-Selection Project-Specific Environmental Questionnaire

- **10 CFR 1021.216**
- **Submitted as part of Volume I, Business and Financial Application**
- **Filename: nepasol**
- **<http://www.netl.doe.gov/business/forms/forms.html>**
- **3-page questionnaire**
- **Information independently evaluated by DOE**
- **Documented in a form of a publicly available environmental critique**



Environmental, Health, Safety, and Security Evaluation Criteria

- **Environmental assessment questionnaire will be evaluated to**
 - determine adequacy and completeness of furnished data
 - assess the applicant's awareness of project-related requirements, including mitigating any project-related risks and impacts
 - make preliminary NEPA classification (CX, EA, EIS) and determine the detail required in/need for an EIV
- **Environmental assessment will not be point-scored**



Post-Selection Environmental Review

- Depending on the information required to satisfy NEPA analysis, applicants may be requested to provide an Environmental Information Volume (EIV)
- www.netl.doe.gov/ppii/index/index.html
- Soon after notice of selection, applicants could expect DOE request for EIV outline
- EIV content: executive summary; purpose and need for the proposed action; alternatives including the proposed action; affected environment; environmental consequences; list of agencies/persons contacts; references



Post-Award Environmental Monitoring

- **Each resulting award will specify the monitoring and reporting requirements necessary to ensure compliance with ES&H regulations and DOE NEPA commitments**
- **Possible reports:**
 - Hazardous Substance Plan
 - Hazardous Waste Report
 - Environmental Compliance Plan
 - Environmental Monitoring Plan/Status Reports
 - Safety and Health Plan/Status Reports
 - Hot Line Reports

